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E. BRIEF SUMMARY OF THE INVENTION

A rigid backpack for use in carrying item that should be cool such as food, canned or bottled drinks, and so forth. The backpack includes at least one compartment and can include an upper compartment and a lower compartment that are formed from rigid material such as plastic or aluminum.

F. BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates separable upper and lower compartments of a rigid backpack in accordance with the invention.

FIG. 2 illustrates an upper compartment that is attached to a lower compartment to form a rigid backpack in accordance with the invention.

FIG. 3 illustrates an embodiment of an integral rigid backpack having an upper compartment and a lower compartment that share a common wall in accordance with the invention.

FIG. 4 illustrates an embodiment of a container mounted in an upper door in the upper compartment of a rigid backpack in accordance with the invention.

FIG. 5 illustrates an embodiment of the lower compartment as a cooler in accordance with the invention.

G. DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

A description of a rigid backpack for use in carrying and storing items that require cooling or are easily damaged, such as food, canned or bottle drinks and so forth, is provided. The rigid backpack includes at least one compartment and can include upper and lower compartments. The compartments are formed from rigid materials such as metal or formable plastics.

Separable lower and upper compartments of a rigid backpack are shown in FIG. 1. Generally, the compartments are polyhedrals with flat or curved surfaces. Alternatively, the compartments can have other shapes that are more spherical, have special design surfaces that reflect logos, and so

51 forth. The compartments are rigid, and can be formed from either a single layer of material or from  
52 multiple layers. Non-rigid layers can be used in combination with other layers of material so long as  
53 the overall combination of layers is rigid. For example, to insulate a compartment an outer metal  
54 layer that is rigid can be combined with a less rigid insulating layer. The rigid material can include  
55 metal, plastic, carbon fiber based materials, and so forth. The rigid material can be opaque or clear,  
56 for example clear plastic.

57         The lower compartment 101 has a top wall 105 and a lower door 109. The lower door 109,  
58 which can have a recessed latching mechanism, is used to access the space inside the lower  
59 compartment 101. The lower compartment 101 can be formed with an insulating layer of material  
60 and have a leak-resistant design so as to function as a cooler. Alternatively the lower compartment  
61 101 can be formed from metal, such as aluminum or stainless steel, and used as a stove when  
62 separated from the upper compartment 103 and when a heat source such as Sterno is placed inside.

63         The upper compartment 103 has a bottom wall 107, and an upper door 111. The bottom wall  
64 107 of the upper compartment 103 and the top wall 105 of the lower compartment 101 have  
65 complementary surfaces that allow the upper compartment 103 to stack on top of and be removably  
66 attached to the lower compartment 101. The upper door 111, which can have a recessed latching  
67 mechanism, is used to access the space inside the upper compartment 103. The upper compartment  
68 103 can have cylindrical container holders 115, 117 mounted to or molded into a top 113. The upper  
69 compartment 103 can be formed with an insulating layer of material and have a leak-resistant design  
70 so as to function as a cooler.

71         A rigid backpack as formed by the attachment of an upper compartment and a lower  
72 compartment is as shown in FIG. 2. Various means of attachment, such as clips, detents, springs,  
73 dowels, zippers, snaps, Velcro, and so forth, can be used to secure the two compartments to each  
74 other. Generally, when the two compartments are attached together, adjacent surfaces of the  
75 compartments form a continuous surface. The surfaces that will be next to a person's back are

76 ergonomically formed. For example, a first surface 119 of the lower compartment 101 is  
77 ergonomically formed as is a first surface 121 of the upper compartment 103. When the  
78 compartments are attached together the compartment surfaces 119, 121 form an approximately  
79 continuous surface that is ergonomically formed.

80 A waist strap 123 and optional lower padding 125 are attached to the first surface 119 of the  
81 lower compartment 101. Similarly, a right shoulder strap 127, a left shoulder strap 129, and optional  
82 upper padding 131 are attached to the first surface 121 of the upper compartment 103. Alternatively,  
83 the waist and shoulder straps can be attached to other parts of the respective compartments. Support  
84 members 133 are attached to a bottom of the lower compartment 101, and are used to facilitate the  
85 standing of the lower compartment and the rigid backpack in an upright position when placed on a  
86 surface such as on the ground. When the compartments are separated, the upper compartment 103  
87 and shoulder straps 127, 129 form a rigid day pack 210, and the lower compartment 101 and waist  
88 strap 123 form a rigid fanny pack 220.

89 A single integrated rigid backpack having an upper compartment and a lower compartment  
90 that share a common wall in accordance with the invention is shown in FIG. 3. In this embodiment,  
91 the upper compartment 103 and the lower compartment 105 are formed as a single integral backpack  
92 300. The upper and lower compartments are attached to each other by a single common wall (not  
93 shown). The common wall forms a top of the lower compartment 301 and a bottom of the upper  
94 compartment 303. A lower door 309 allows access to the space inside the lower compartment 301.  
95 Similarly, an upper door 311 allows access to the space inside the upper compartment 303.

96 An embodiment of a container mounted in an upper door in the upper compartment of a rigid  
97 backpack is shown in FIG. 4. The container (not shown) that is attached to the upper door 111  
98 extends into the upper compartment 130. The container is formed for the storage of small items such  
99 as cigarette pack, lighter, sunglasses, or so forth that can be difficult to find or may be damaged if

100 placed inside either the upper compartment 103 or the lower compartment (not shown). An access  
101 door 135 for the container is mounted in the upper door 111.

102 An embodiment of the lower compartment as a cooker is shown in FIG. 5. For this  
103 embodiment the waist strap and padding are removed, and the lower compartment 501, which is  
104 preferably constructed from metal, is positioned on a generally level surface. The lower  
105 compartment 501 includes a lower door 503 and a cooking surface 507. This surface is used for  
106 cooking, and in accordance with the invention is complementary in design to the bottom of an upper  
107 compartment (not shown). With the lower door 503 open, a heat source 509, such as Sterno, are  
108 placed inside the lower compartment 501 for use in cooking eggs 511 on the cooking surface 507.

109 An advantage of the present invention is the elimination of hand carrying a clumsy cooler.  
110 The invention is particularly useful when faced with carrying a cooler over long distances, in  
111 crowds, or where having hands free would be an advantage. A rigid backpack protects item like  
112 food and beverages from being damage by being bumped or crushed from outside the backpack, and  
113 a rigid lower compartment made of metal can be used as a stove. In addition, a rigid backpack  
114 eliminates the need of framing as needed when soft materials are used to form the backpack.

115 The present invention may be embodied in other specific forms without departing from its  
116 spirit or essential characteristics. The described embodiments are to be considered in all respects  
117 only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the  
118 appended claims rather than by the foregoing description. All changes that come within the meaning  
119 and range of equivalency of the claims are to be embraced within their scope.

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